ECS Configuration Change Request

1. Originator	2. Log Date:	3. CCR #:	4. Rev:	5. Tel:	6. Rm #:	7. Org.
Mike Hood	22 OCT 99	99-1042	-	301-925-0472	2108F	SE

8. Title of Change: Corrections to VDB criteria

9. Originator Signature/Date	10. Class	11. Type:	12. Need Date:
MH 10/21/99	II	CCR	11/1/99

13. Office Manager Signature/Date	14. Category of Change:	15. Priority: (If "Emergency" fill in Block 28).
10/21/99	Update Baseline	Routine

16. Documentation/Drawings Impacted:	17. Schedule Impact:	18. CI(s) Affected:
VDB		

19. Release Affected:	20. Date due to Customer:	21. Impl. Date:	22. Estimated Cost:
5B	11/1/99	11/1/99	None

23. Source Reference: ☐NCR (attach) ☐Action Item ☐Tech Ref. ☐GSFC ☒Other:
VDB

24. Description of Change: (use additional Sheets if necessary)
Modify criteria 1383 ,found in RH03, to better explain the functional criteria to be tested.
Modify criteria 1418, found in RH04, to remove an irreonous statement.
Modify criteria 1625, found in SM01. to reflect direction provided by ESDIS relative to SIPS data.

25. Proposed Solution: (use additional sheets if necessary)
Modify criteria according to attached table.

26. Alternate Solution: (use additional sheets if necessary)
None

27. Consequences if Change(s) are not approved: (use additional sheets if necessary)
Criteria will be incorrect.

28. Justification for Emergency (If Block 15 is "Emergency"):

29. Site(s) Affected: ☐EDF ☐Mini-DAAC ☐VATC ☐EDC ☐GSFC ☐LaRC ☐NSIDC ☐SMC ☐AK ☐JPL ☐EOC ☐IDG Test Cell ☐Other

30. Board Comments:	31. Work Assigned To:

32. EDF/REL2 CCB Chair (Sign/Date):	33. Disposition: Approved A/C Disapproved Fwd/ECS Fwd/ESDIS	34. (TBD)
Mac McDonald 10/25/99		
35. M&O CCB Chair (Sign/Date):	**36. Disposition:** Approved A/C Disapproved Fwd/ECS Fwd/ESDIS	**37. CM Manager's Closure:**
38. ECS CCB Chair (Sign/Date):	**39. Disposition:** Approved A/C Disapproved	**40. CCR Closed Date:**

Subject: CCR 99-1042
Date: Fri, 22 Oct 1999 15:34:07 -0400
From: Michael Hood <mhood@eos.hitc.com> (by way of Dan Marinelli <dmarinel@rattler.gsfc.nasa.gov
To: Michael Hood <mhood@eos.hitc.com>
CC: mike.moore@gsfc.nasa.gov

Mike H.

I am ok with the changes contained in the attached CCR.

Dan

Dan

Attached is the CCR form and associated update table to modify 3 criteria. I have all the signatures, including Cheryl's, except for ESDIS. Could you please review and let me know if you approve the CCR or have any commments or concerns. An EMAIL with your approval is sufficient for the CCB.

Thanks,

Mike Hood

Part 1.2	**Name:** CCR 99-1042 Table.doc **Type:** application/msword **Encoding:** base64

Part 1.3	**Name:** CCR 99-1042.doc **Type:** application/msword **Encoding:** base64

Update VDB Criteria

criteria.criteria_key	criteria.criteria_id	criteria.criteria_statement	criteria.criteria_type
1383	50	Demonstrate the ability to correctly plan and execute a PGE ~~that requires 'closest granules' both prior to and after the DPR processing time (for separate input data types)~~ where DPR time is set to the **future** and it requires one or more 'closest granules' that are to arrive in the future time **before** the DPR time. (DPR with the dummy granule is first created as a place-holder and later upon timer wakeup, dummy granules are replaced by the actual granules.).	FC
1418	30	Demostrate for the spatial pad production rule that granules that otherwise might satisfy the query but fall outside the region ~~or overlap the boundary~~ are rejected.	FC
1625	10	Inspect the INS database to confirm that all the data types listed for 5B for the following interfaces have the correct entry information: a) DAS b) SIPS – CERES Appendix c) SIPS – MODAPPS Appendix d) SIPS – PM-1 Instrument Appendices e) SIPS – AMSR L1B (ADEOS) f) EDOS – PM-1 L0 For SIPS data types, Compare SIPS ICD to check DataType, VersionID and FileTypeTemplateKey in InDataTypeTemplate table. FileTypeTemplateKey should be "SIPS" if provider is ~~using~~ required to provide InputPointer in metadata otherwise it should be~~or~~ "NON_STD_ SIPS" ~~if provider not using InputPointer~~. For EDOS L0, check DataType in InDataTypeTemplate table against EDOS ICD For DAS, check information in each of the following tables: InDataTypeTemplate table – Check DataType against DAS ICD InfileTypeTemplate table – check that FileTypeTemplateKey equals DataType in InDataTypeTemplate table InSourceMCF tabel – check SourceMCF equals DataTpye in InDataTypeTemplate table	~~EC~~FC

CCR: 99-~~xxxx~~ 1042

Ticket: SM_5B_01

CCR Number: 99-0955
CCR Date: 10/04/1999
Latest CCR Affecting this Ticket: 99-0955
Latest CCR DATE Affecting this Ticket: 10/04/1999

Title: Ingest Operability and New Data Types
Launch Criticality: 5B
Review: NO DATA

Priority: NO DATA

Preconditions:

Comments:
This ticket covers the 5B Ingest functionality. Specifically:
a) Operator support for Ingest request cancellation
b) New Ancillary Data Type support (DAS and NCEP)
c) SIPS Interface testing for PM-1
d) SIPS Interface testing for AMSR L1B (ADEOS)
e) New MODAPPS products
f) LaTIS 5B products
g) EDOS PM-1 L0 data
Note as in earlier releases SIPS Interface testing is limited for acceptance test purposes to generic interface capabilities. Individual data types are not tested except to confirm Ingest table configurations. In addition, INS invokes no new error conditions with the 5B functionality, so no ECs are listed.

The throughput requirements for the PM-1 mission are allocated to Release 6A. Therefore, even though the functional capability for PM-1 MODAPS and LaTIS data ingest is in 5B to support SSI&T, the performance requirements to process the PM-1 data ingest at the daily throughput volume is allocated to 6A.

Development Capability(ies):

Cap ID	Title	Description	Date Modified
00050IN	INS Allow Operator To Cancel/Resume Ingest Requests	Allows operator to Cancel and Resume Ingest requests via the Ingest GUI. Request Mgr and Granule Server checks cancel commands from the GUI at various points during processing.	08/09/1999
00211IN	INS Additional Data Types (more DAS, NCEP03)	Database entries to support additional DAS datatype procducts. Estimate is encapsulated in ESD ??? Assumes no new code to support these products.	10/05/1999
10000IN	Ingest Tailoring For PM-1 AMSR Products	Support for database updates for new data products for PM Instruments(AMSR, CERES, MODIS, AIRS). Assumption is SIPS interface will be utilized and no code changes will be required in Ingest.	10/05/1999
10011IN	Ingest of MODIS higher-level products from the MODAPS		08/09/1999

10011IN	products from the MODAPS system		08/09/1999
10014IN	This provides the capability to ingest CERES higher level products via LaTIS into Drop 5B in accordance with and as specified in the SIPS ICD.		08/09/1999
10018IN	5B L0 EDOS Ingest	Ingest PM-1 L0 from EDOS	08/09/1999
10021IN	Ingest AMSR (ADEOS)		10/05/1999

Level 3 Requirement(s):

L3 ID	L3 Text	Clarification	Category	Release	CCR Num
DADS0145	The ECS shall be capable of receiving from NOAA the following: a. Metadata b. Ancillary data	Some ancillary data types are not yet supported. 5B: ISCCP-GW; NCEP	INS, SDSRV	5B Partial	99-0496
DADS0190	The ECS shall receive from the SCF the following: a. Special products (L1-L4) b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Science Software g. Standard Products (L1-L4)	The ingest of SCF data products will be supported by the SIPS interface which is further specified in SDPS0092 and SDPS0093. Special Data Products are described in the F&PRS Glossary. ECS assumes that the DAACs are responsible for creating and testing ESDTs for Special Products. The volume of Special Data Products will not impact archive capacity significantly and they will be ingested by ECS through the SIPS interface. 5A: Support to AM-1 Mission 5B: Capability to be added to support PM-1 Mission 6B: CHEM-1	INS, SDSRV	5A 5B Partial	99-0651
DADS0260	The ECS shall receive non-EOS correlative and ancillary digital data.	Current: Support to AM-1 Mission 5B: Capability to be added to support PM-1 Mission	INS, SDSRV	5B Partial	99-0651
EOSD1600	The ECS shall exchange status data with EDOS.	PDRD and PANs are exchanged with EDOS EDOS/EOC STATUS (AS APPLICABLE). . Current: Support to AM-1 Mission 5B: Capability to be added to support PM-1 Mission	INS	5B Partial	99-0651
	The ECS shall receive from EDOS telemetry data, including housekeeping,	Current: Support to AM-1			

EOSD1605	housekeeping, engineering, ancillary, and science data from EOS instruments and spacecraft.	Current: Support to AM-1 Mission 5B: Capability to be added to support PM-1 Mission	INS	5B Partial	99-0651
EOSD1703	The ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a. System Management b. Science Algorithm Integration c. Product Generation d. Data Archive/Distribution e. User Support Services f. System Maintenance	Users Support Services (e) are available through non-ECS personnel at the DAACs. Ingest Cancel/Resume capability to be added in 5B.	Operational	5B Partial	99-0651
SDPS0092	The ECS shall provide an interface as defined in the SIPS ICD for supporting external production and reprocessing of standard ECS products.	Future: Provided through SIPS ingest interface and machine-to-machine gateways. 5B: PM-1 Ingest 6A: Machine to machine	SDSRV, INS	5B 6A Future	99-0651

IRD Requirement(s):

NONE

Level 4 Requirement(s):

L4 ID	L4 Text	Release	CCR Num
S-INS-00350	The INGST CI shall accept an ingest Cancellation Request from authorized operations staff to cancel an ongoing ingest request, specifying the ingest Request Identifier.	5B	99-0729
S-INS-00364	The INGST CI shall set the state of a request to "suspended" when the number of retries for a retriable error exceeds the maximum number of retries threshold as configured.	5B	99-0729
S-INS-00366	The INGST CI shall accept an ingest Resumption Request from authorized operations staff to resume ongoing ingest request processing or granule processing for a specified "suspended" ingest Request Identifier or Granule Identifier.	5B	99-0729
S-INS-00540	The INGST CI shall be configured to ingest PM-1 data in accordance with the SIPS ICD.	5B	99-0729
S-INS-00546	The INGST CI shall ingest PM-1 Level 0 data provided by EDOS data, into the GSFC DAAC.	5B	99-0729

S-INS-00546	data, into the GSFC DAAC.	5B	99-0729
S-INS-00547	The INGST CI shall ingest PM-1 Level 0 data provided by EDOS data, into the LaRC DAAC.	5B	99-0729
S-INS-00548	The INGST CI shall ingest NCEP Surface Flux, into the GSFC DAAC.	5B	99-0954
S-INS-00549	The INGST CI shall be configured to ingest AMSR ADEOS data in accordance with the SIPS ICD.	5B	99-0954
S-INS-00620	The INGST CI shall ingest data, provided by the DAO, from the ESN into the LaRC DAAC in accordance with the DAO ICD	5B	99-0729

Criteria:

Criteria Key	Criteria ID	Criteria Text	Type	CCR Num
1625	10	Inspect the INS database to confirm that all the data types listed for 5B for the following interfaces have the correct entry information: a) DAS b) SIPS – CERES Appendix c) SIPS – MODAPPS Appendix d) SIPS – PM-1 Instrument Appendices e) SIPS – AMSR L1B (ADEOS) f) EDOS – PM-1 L0 For SIPS data types, Compare SIPS ICD to check DataType, VersionID and FileTypeTemplateKey in InDataTypeTemplate table. FileTypeTemplateKey should be "SIPS" if provider is using InputPointer in metadata or "NON_STD_ SIPS" if provider not using InputPointer For EDOS L0, check DataType in InDataTypeTemplate table against EDOS ICD For DAS, check information in each of the following tables: InDataTypeTemplate table – Check DataType against DAS ICD InfileTypeTemplate table – check that FileTypeTemplateKey equals DataType in InDataTypeTemplate table InSourceMCF tabel – check SourceMCF equals DataTpye in InDataTypeTemplate table	EC	99-0955
1626	20	Ingest NCEP03 (Surface Flux Product) via polling with PDR protocol * Initiate an Insert of an NCEP03 granule via Polling with PDR protocol * Check for successful ingest/archive of file in native (GRIB) format	FC	99-0955

1627	30	Ingest request cancel of an active request * Initiate an Insert of a DAS data product * Cancel the request while it is still active	FC	99-0955
1628	40	Ingest request cancel of an active granule insert * Initiate a multi-granule insert (using a single PDR) of several DAS data products * While the request is still active, cancel a single granule from the request.	FC	99-0955
1629	50	Ingest request cancel of a suspended request * Take Down Staging Disk Server * Insert a higher level CERES product through the SIPS interface– This will cause the request to "suspend". * Cancel the suspended request	FC	99-0955
1630	60	Ingest request resumption of a suspended request * Take down the Staging Disk Server * Insert a higher level CERES product through the SIPS Interface ñ This will cause the request to "suspend". * Bring up the Staging Disk Server * Resume the request * Check for successful completion	FC	99-0955
1631	70	Ingest request cancel of a partially suspended request * Insert several higher level MODAPPS products through the SIPS interface using a singlePDR. * After successful ingest/archive of some of the granules, take down the Staging Disk Server– This will cause the request to "partially suspend". * Cancel the partially suspended request	FC	99-0955
1632	80	Ingest request resumption of a partially suspended request * Insert several higher level MODAPPS products through the SIPS interface using a single PDR. * After successful ingest/archive of some of the granules, take down the Staging Disk Server– This will cause the request to "partially suspend". * Bring up the Staging Disk Server * Resume the partially suspended request * Check for successful completion	FC	99-0955
1633	90	Show that system can ingest and archive the daily volume of DAS data at 1.2 the daily input rate (1.2 X 2.4 = 2.9 GB/day). The data volume includes both the first look and late look analysis products allocated to Release 5A and 5B	PC	99-0955

Test Case(s):

NONE

Ticket: RH_5B_03

CCR Number: 99-0742
CCR Date: 08/19/1999
Latest CCR Affecting this Ticket: See Development Capabilities for Latest Change
Latest CCR DATE Affecting this Ticket: 08/25/1999

Title: Closest Granule Production Rules
Launch Criticality: 5B
Review: NO DATA

Priority: NO DATA

Preconditions:

Comments:
Refer to legacy ticket RH84 for related functionality

Development Capability(ies):

Cap ID	Title	Description	Date Modified
00967DP	AM-1 Production Rules (Closest Granule, Spatial Pad)	DPS (SSIT) support for specifying the Closest Granule Production Rule	08/09/1999
00967PL	AM-1 Production Rules (Closest Granule, Spatial Pad)	Upon processing a PGE that is identified to require a closest granule, the software will find the granule that is closest from the given time frame whether it be before or after the time frame. It will first search for the granule before the time, from the Data Server or from the PDPS database, depending on the availability of that is closest from the given time frame whether it be before or after the time frame. It will first search for the granule before the time, from the Data Server or from the PDPS database, depending on the availability of DSS interface, and then it will search again for another granule after the time. If there is a chance that future granule is closer to the time frame than the closest past granule found, the subscription generated granule will be considered	08/09/1999

Level 3 Requirement(s):

L3 ID	L3 Text	Clarification	Category	Release	CCR Num
PGS-0200	The ECS shall execute Science Software in accordance with the Production Rules specified by the responsible instrument team	Most of the production rules listed below have been identified to support execution of specific PGEs. Some Instrument Teams have not yet identified all of the production rules that will be required to execute their PGEs. As these Production Rules and those for CHEM-1, and PM-1 are identified, they will be added to this list and evaluated against the Production Rule budget in Option A+ for additional cost consideration. All supported Production Rules will be identified in indvidual L4 requirtements. Current: a-s (a, b, c, d, e, f, g, h, I, j, k, l, m, n, o, p, q, r, s) Future: t-aa (t, u, v, w, x, y, z, aa) Where the currently identified Production Rules are: a. Basic temporal b. Advanced temporal c. Boundary offset d. Orbit-based activation f. Alternate ancillary inputs i. Spatial query l. Metadata-based query for input granules n. Minimum number of granules p. Runtime parameters q. Runtime parameter flag r. Accessing 1-233 path number t. Optional DPRs u. Most recent granule z. Spatial pad (5B) aa. Closest granule (5B)	PDPS	5B 6A 6B Partial	99-0651

IRD Requirement(s):

NONE

Level 4 Requirement(s):

L4 ID	L4 Text	Release	CCR Num
S-DPS-46000	The AITTL CI shall validate the following new parameters that define and describe the closest granule production rule: a. Direction of search (forward/backward) b. The Query interval/offset period c. The maximum number of queries	5B	99-0729
S-DPS-46010	The AITTL CI shall be able to register PGEs that exercise the closest granule production rule.	5B	99-0729
S-PLS-00412	The PLANG CI shall have the capability to determine input granules, which have data collection times closest to the time of the related DPR.	5B	99-0729
S-PLS-00414	The PLANG CI shall have the capability to specify the direction of search (forward or backwards) when searching for the closest granule to the time of the related DPR.	5B	99-0729

Criteria:

Criteria Key	Criteria ID	Criteria Text	Type	CCR Num
1379	10	Demonstrate the ability to correctly perform the SSIT activities to register a PGE that uses the closest granule production rule.	FC	99-0742
1380	20	Demonstrate the ability to correctly plan and execute a PGE that requires a ëclosest granulesí prior to the DPR processing time. Exercise the following cases: the granule is (a) found within the first query interval (b) found within the last query interval (c) found in an intermediate interval (d) located coincident to the DPR period.	FC	99-0742
1381	30	Demonstrate the ability to correctly plan and execute a PGE that requires a ëclosest granulesí following the DPR processing time. Exercise the following cases: the granule is (a) found within the first query interval (b) found within the last query interval (c) found in an intermediate interval (d) located coincident to the DPR period.	FC	99-0742
1382	40	Demonstrate the ability to correctly plan and execute a PGE that requires both the closest granule production rule and the min/max granules production rule. Exercise the case for a minimum of 3-4 "closest granules" prior to the DPR processing time. Exercise the following cases: the granules are (a) all found within the first query interval (b) all found within the last query interval (c) found distributed arbitrarily among the intervals. Exercise the same case but in the post-DPR processing time period.	FC	99-0742
1383	50	Demonstrate the ability to correctly plan and execute a PGE that requires 'closest granules' both prior to and after the DPR processing time (for separate input data types).	FC	99-0742
1384	60	Demonstrate the ability to correctly plan and execute a PGE that requires one or more 'closest granules' after the DPR processing time but where the combination of query repeat value and query interval may go beyond the present time. Verify that the query cycle will not go beyond the present time.	FC	99-0742
1385	70	Verify that if no granules are found for the specified query period and maximum queries values that the DPR does fail.	EC	99-0742
1386	80	Verify that if the closest granules production rule is used in conjunction with the min/max granules production rule and less than the minimum or more than the maxiumum number of granules are found for the specified query period and maximum queries values that the DPR does fail.	EC	99-0742

Test Case(s):

NONE

Ticket: RH_5B_04

CCR Number: 99-0777
CCR Date: 08/25/1999
Latest CCR Affecting this Ticket: 99-0777
Latest CCR DATE Affecting this Ticket: 08/25/1999

Title: Spatial Pad Production Rules
Launch Criticality: 5B
Review: NO DATA

Priority: NO DATA

Preconditions:

Comments:
Refer to legacy ticket RH84 for related functionality.

Development Capability(ies):

Cap ID	Title	Description	Date Modified
00964DP	AM-1 Production Rules (Closest Granule, Spatial Pad)	DPS (SSIT) support for specifying the Spatial Pad Production Rule	08/09/1999
00964PL	AM-1 Production Rules (Closest Granule, Spatial Pad)	This capability involves retrieving the polygon from a SDSRV granule and expanding it's area by a given amount. This will allow the PRE to find more granules than it normally would.	08/09/1999

Level 3 Requirement(s):

L3 ID	L3 Text	Clarification	Category	Release	CCR Num
PGS-0200	The ECS shall execute Science Software in accordance with the Production Rules specified by the responsible instrument team	Most of the production rules listed below have been identified to support execution of specific PGEs. Some Instrument Teams have not yet identified all of the production rules that will be required to execute their PGEs. As these Production Rules and those for CHEM-1, and PM-1 are identified, they will be added to this list and evaluated against the Production Rule budget in Option A+ for additional cost consideration. All supported Production Rules will be identified in indvidual L4 requirtements. Current: a-s (a, b, c, d, e, f, g, h, I, j, k, l, m, n, o, p, q, r, s) Future: t-aa (t, u, v, w, x, y, z, aa) Where the currently identified Production Rules are: a. Basic temporal b. Advanced temporal c. Boundary offset d. Orbit-based activation f. Alternate ancillary inputs i. Spatial query l. Metadata-based query for input granules n. Minimum number of granules p. Runtime parameters q. Runtime parameter flag r. Accessing 1-233 path number t. Optional DPRs u. Most recent granule z. Spatial pad (5B) aa. Closest granule (5B)	PDPS	5B 6A 6B Partial	99-0651

IRD Requirement(s):

NONE

Level 4 Requirement(s):

L4 ID	L4 Text	Release	CCR Num
S-DPS-46020	The AITTL CI shall validate the following new parameter that defines and describes the spatial pad production: the distance in kilometers by which the spatial query should be extended.	5B	99-0768
S-DPS-46030	The AITTL CI shall be able to register PGEs that exercise the spatial pad production rule.	5B	99-0729
S-PLS-00410	The PLANG CI shall have the capability to extend the spatial extent of an ASTER granule by a specified amount in distance units when determining the input granules within it.	5B	99-0729

Criteria:

Criteria Key	Criteria ID	Criteria Text	Type	CCR Num
1416	10	Demonstrate the ability to correctly perform the SSIT activities to register a PGE that uses the Spatial Pad production rule.	FC	99-0777
1417	20	Demonstrate the spatial pad granule selection capability by correctly planning and executing a PGE where ECS/PLS selects a granule for input to processing based upon a specifying spatial region. The specifying spatial region is defined by the spatial extent of a primary input granule plus a spatial pad value (in KM) that is used to expand the primary input granule spatial region. Selected granules must fall within or overlap the boundary of the specifying spatial region.	FC	99-0777
1418	30	Demostrate for the spatial pad production rule that granules that otherwise might satisfy the query but fall outside the region or overlap the boundary are rejected.	FC	99-0777
1419	40	Demonstrate the spatial pad granule selection capability where selected granule share one or more boundaries with the specifying spatial region while still being completely contained within the specifying spatial region.	FC	99-0777
1420	50	Demonstrate the ability of SSIT components to limit the spatial pad factor to less than 1000 KM for PGEs using the spatial pad production rule.	FC	99-0777
1421	60	Demonstrate the spatial pad granule selection capability where the spatial pad value is 0 KM.	FC	99-0777
1422	70	Demonstrate that the following errors are detected during the PGE registration processes: a. A negative spatial pad value is input	EC	99-0777

Test Case(s):

NONE

Author: Richard Meyer at _1-ECS-2
Date: 10/7/99 11:38 AM
Priority: Normal
Subject: Ingest DB Configuration for InputPointer for SIPS ESDTs

All,

Yesterday we received direction from ESDIS (Mike Moore) to configure the Ingest database so that the Input Pointer attribute is optional for ALL SIPS ESDTs.

Ingest will process the Input Pointer when provided, but will accept the ingest of the SIPS ESDTs if no Input Pointer is specified.

I have given direction to Art Cohen to make this change - we already have an NCR for the MOPITT ESDTs that we can map the change to.

Next Week, when Richard Meyer gets back, we are also going to evaluate the current handling of the conversion of Input Pointers to URs. We need to look into how we handle:

1) The situation of finding no matching local granule ID that matches the Input Pointer on insert (We loop through retries on this and this could be a performance hit)

2) The situation of finding multiple matches of the Input Pointer to local granule ID (We currently reject the insert).

Please see me if there are any questions,

Joe